

REMARKS

Claims 1-9 are all the claims pending in the application. Claims 5-9 have been newly added.

Specification Objection

The Examiner objects to the title of the invention as allegedly not descriptive. Applicant has amended the title in a manner believed to overcome the objection.

Claim Rejections - 35 U.S.C. § 102

• **Claim 1 - Horvat**

Claim 1 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Horvat (U.S. Patent No. 4,600,890). Applicant respectfully traverses the rejection because Horvat fails to teach each and every element of claim 1.

Claim 1 sets forth a variable gain controller which performs variable gain of detection data generated by detection of a received wave that is frequency-converted to an intermediate frequency signal. Horvat lacks at least this feature of claim 1. There is no indication that the alleged variable gain controller of Horvat processes a signal which has been detected and converted into an intermediate frequency signal. In fact, claim 1 of Horvat, the only independent claim, teaches an automatic gain controller which processes a non-controlled incoming carrier wave. Nothing in the Horvat specification teaches a detected and converted signal as claimed.

Additionally, claim 1 sets forth digital signal processing. Typically using digital processing increases cost or a circuit scale (*see*, for example, specification paragraphs [11]-[13]). However, a non-limiting embodiment of the present invention can use digital signal processing

without excessive cost or circuit scale (*see*, for example, specification paragraphs [55] and [56]).

In contrast, Horvat teaches that an output from a PLL or an output from a shaping circuit is clamped, and is compared by a comparator through a pulse blanking circuit. An output from a pulse-rate measuring circuit is then used as a reference voltage of an AGC circuit. There is no indication that a digital signal processing is performed.

At least for the above reasons, claim 1 is allowable over Horvat.

- **Claim 1 - Rotzoll**

Claim 1 stands rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Rotzoll (U.S. Patent No. 5,737,035). Applicant respectfully traverses this rejection because Rotzoll fails to teach or suggest each and every element of claim 1.

Claim 1 sets forth that the noise clamping section performs noise clamping of constant level detection data which is output from the variable gain controller. The Examiner asserts that Rotzoll teaches an automatic gain controller (AGC 438) which meets the variable gain controller of claim 1 and a sync clamp (SCMP 432) which meets the noise clamping section of claim 1. However, in Rotzoll, the alleged noise clamping section (SCMP 432) does not receive constant level detection data from the alleged variable gain controller (AGC 438). SCMP 432 instead receives a signal of a baseband video from video detector (VDET 426) through a bandwidth filter (VBBF 430; *see* Fig. 4 and column 10, line 54 through column 11, line 4). Additionally, while the AGC adjusts the gains of other components to maintain a standard video signal, there is no indication that the AGC itself outputs data having a constant level output (*see* column 10, line 66 to column 11, line 1).

Additionally, as discussed above, claim 1 sets forth digital signal processing. Rotzoll is also deficient because it does not teach or suggest digital signal processing.

Applicant submits that claim 1 is allowable over Rotzoll at least for the above reasons.

Claim Rejections - 35 U.S.C. § 103

- **Claim 2**

Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Horvat or Rotzoll in view of Paul, Jr. et al. (U.S. Patent No. 4,000,369). Nothing in Paul corrects the above noted deficiencies of Horvat and Rotzoll with respect to claim 1. Claim 2 depends from claim 1. Since Horvat or Rotzoll in view of Paul is deficient with respect to independent claim 1, the combination is also deficient with respect to dependent claims 2.

- **Claims 3 and 4**

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Horvat or Rotzoll in view of Rumreich (U.S. Patent No. 5,133,009). Rumreich fails to correct the above noted deficiencies of Horvat and Rotzoll with respect to claim 1. Claims 3 and 4 depend from claim 1. Since Horvat or Rotzoll in view of Rumreich is deficient with respect to independent claim 1, the combinations are certainly also deficient with respect to dependent claims 3 and 4.

Additionally, there is no motivation to modify Horvat or Rotzoll with Rumreich and any combination would still be deficient. For example, the alleged noise clamping section of Rotzoll (SCMP 432) is designed to amplify a output voltage level by a fixed gain (*see* column 10, lines 61-61). The Rumreich noise clamping section selects between two signals and does not provide

a fixed gain (*see* column 7, lines 9-38). Therefore, the Rumreich noise clamping section could not perform the function of the alleged noise clamping section in Rotzoll. Accordingly, one of ordinary skill in the art would not have been motivated to substitute SCMP 432 of Rotzoll with the noise clamping section of Rumreich.

The Horvat noise control circuit (400) produces an analog amplitude signal which is proportional to the rate of disabling pulses, for example, by calculating a mean value (*see* column 3, line 56 to column 4, line 4). The Horvat noise control circuit can produce a varying analog output. As discussed above, Rumreich only outputs one of two distinct values. One of ordinary skill in the art would not have been motivated to substitute the Horvat circuit with the Rumreich noise clamping section, at least because it would not provide for the varying number of outputs of the Horvat circuit.

Also, even if the substitutions were proper, the Rumreich noise clamping section does not meet the claimed noise clamping section. Claim 3 sets forth outputting second reference data as the data for the signal wave when the detection data is larger than the second reference data. Rumreich uses 0.7V as a comparison data, but outputs 1.3V or an input signal 130 (*see* column 7, lines 9-38). There is no second reference data that is used as a comparison and may be output, as set forth in claim 3. Therefore, not only is there no motivation to modify Horvat or Rotzoll with Rumreich, even if the references were combined, the combination would still be deficient.

Claim 4 is additionally allowable because none of the cited references teach a digital multiplier for multiplying a first reference data (used as an input to the digital divider of the

automatic gain control circuit) to generate a second reference data. Even if the cited references use a multiplier, they do not use a multiplier which operates as claimed.

New Claims

New claims 5-9 have been added to provide more varied protection for the invention. Claim 5 depends from claim 1, and is therefore allowable at least because of its dependency. Claims 6-9 are allowable at least for reasons similar to those given above with respect to claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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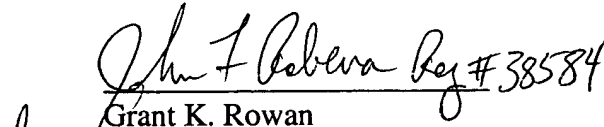
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